COMPACT DISC PLAYER

DP-5030

SERVICE MANUAL

KENWOOD

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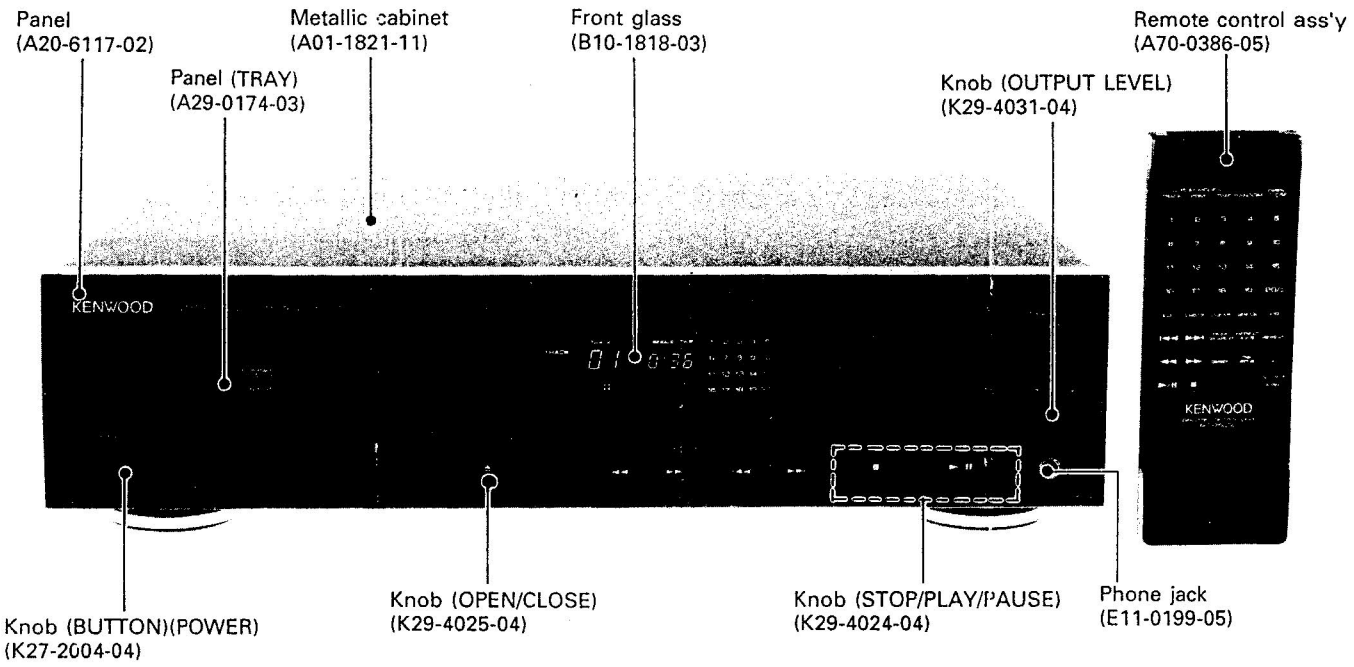
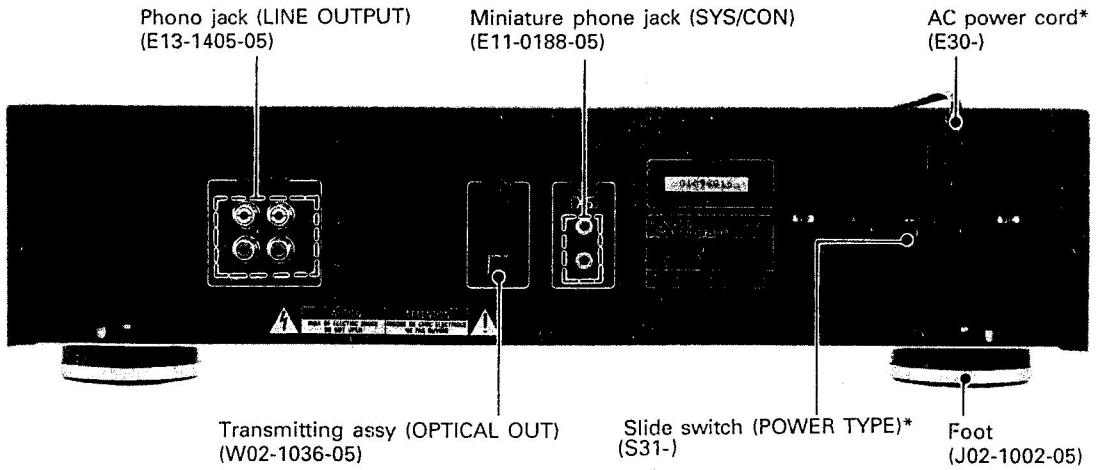
B51-4243-00 (O) 3740





***Refer to parts list on page 27.**

In complicance with Federal Regulations, following are reproductions of labels on, or inside the product relating to laser product safety.

KENWOOD-Corp. certifies this equipment conforms to DHHS Regulations No. 21 CFR 1040. 10, Chapter 1, Subchapter J.

DANGER : Laser radiation when open and interlock defeated. AVOID DIRECT EXPOSURE TO BEAM.

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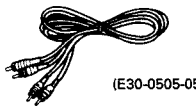
Accessories

- Audio cord 1



(E30-0505-05)

- Remote control unit 1

(A70-0386-05)

- System control cord 1
(Except for the U.K. and Europe)

(E30-0977-05)

- Battery ("AA" or "R06") 2

(—)

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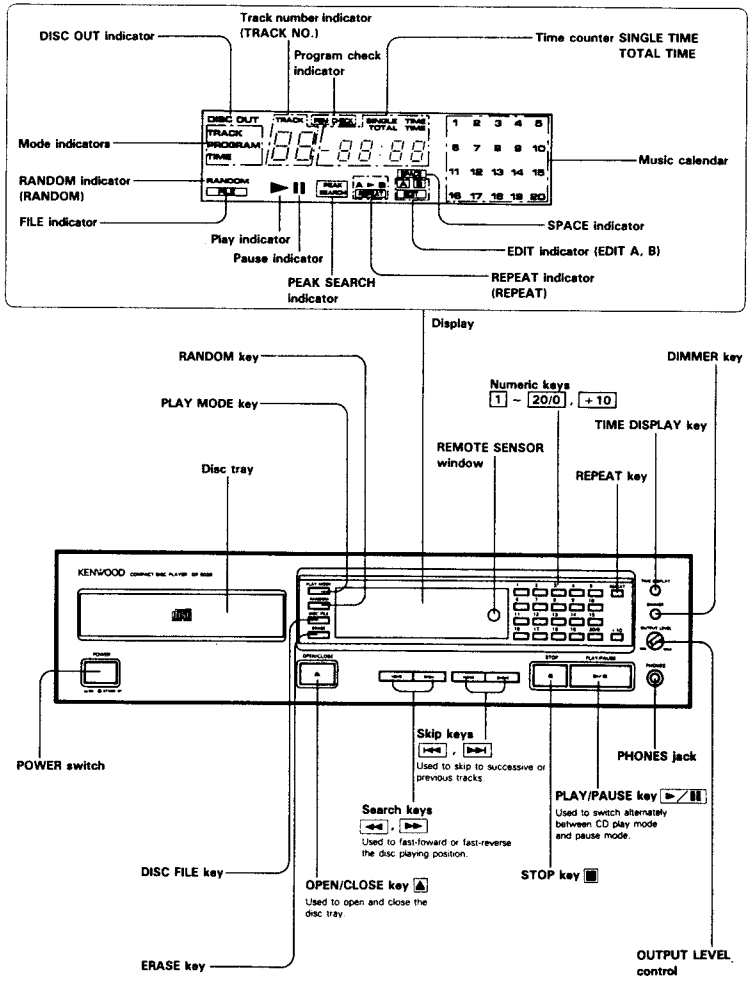
CONTROLS / CAUTION

Controls

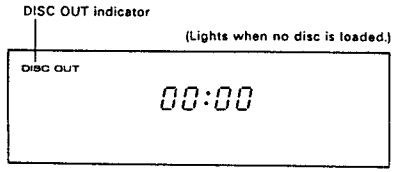


Caution

- **Note related to transportation and movement**

Carry out the operations listed before transporting or moving this unit.

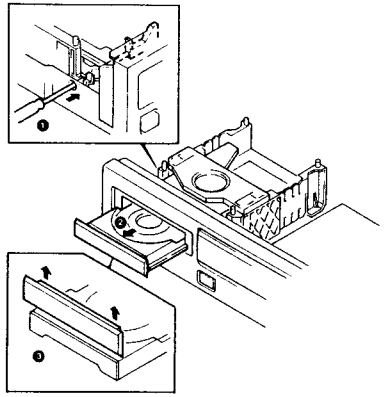
1. After making sure that there is no compact disc loaded in the unit, turn the POWER switch ON.
2. Wait for several seconds to verify that the DISC OUT indicator (OUT) lights on the display. and then turn the POWER switch back OFF.



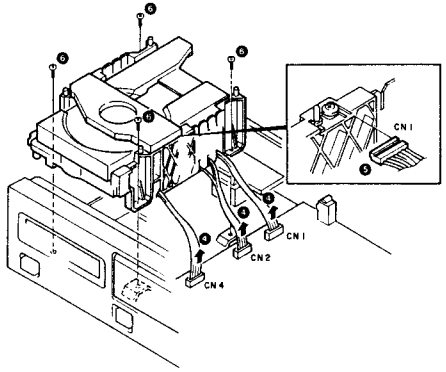
DISASSEMBLY FOR REPAIR

1. HOW TO DISASSEMBLE MECHANISM

1. Insert the screw driver to the left-side hole of mechanism ass'y (❶) and push the slider
2. Pull out the tray (❷).
3. Remove tray panel (❸).

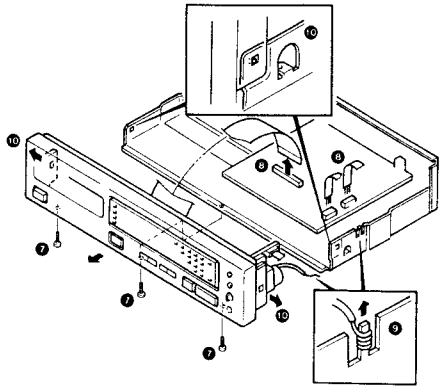


4. Push the tray backwards.
5. Remove 3 connectors (❹).
6. Set CN1 connector to LD short-pin (❺).
7. Remove 4 screws (❻).



2. HOW TO REMOVE FRONT PANEL

1. Remove 3 screws (❼).
2. Remove 3 cable from connector (❽).
3. Remove the GND wire from chassis (❾).
5. Disengage the stoppers on both side of front panel (❿)and the front panel.



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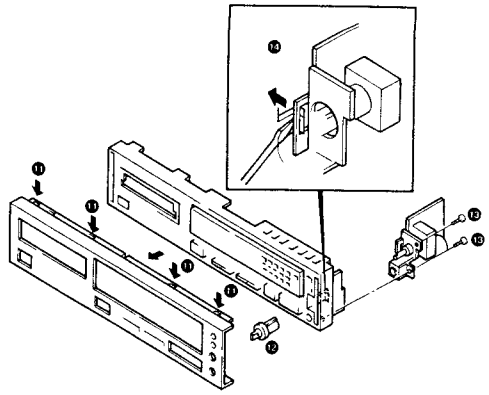
DISASSEMBLY FOR REPAIR

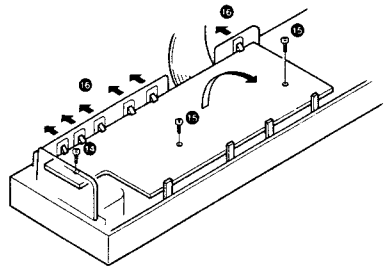
3. HOW TO REMOVE HEADPHONE PC BOARD

1. Remove 4 stoppers (⓫) and front panel.
2. Remove knob (⓬) and 2 screws (⓭).
3. Remove 3 stopper (⓮) and pc board.



4. HOW TO REMOVE DISPLAY PC BOARD

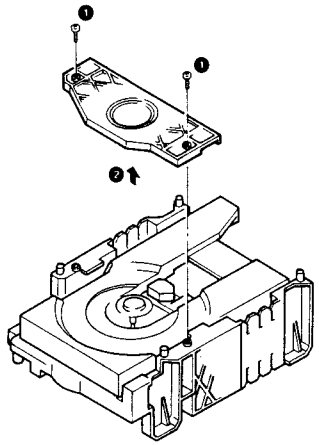
1. Remove 3 screws (⓯).
2. Remove 6 stoppers (⓰) and pc board.



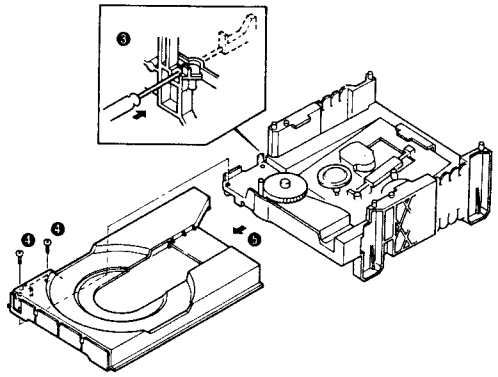
DISASSEMBLY FOR REPAIR

5. HOW TO REMOVE TRAY

1. Remove 2 screws (❶).
2. Remove clamper ass'y (❷).

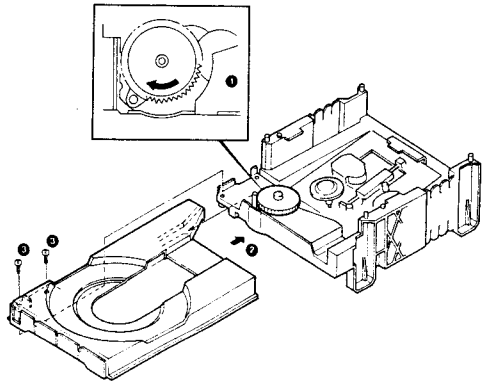


3. Insert the driver to left-side hole of mechanism ass'y and push the slider (❸).
4. Remove 2 screws (❹).
5. Tray can be pulled out (❺).



6. HOW TO MOUNT TRAY

1. Set the pole to fully clockwise (❶).
2. Insert the tray to both-side guide on chassis (❷).
3. Fix 2 screws (❸).

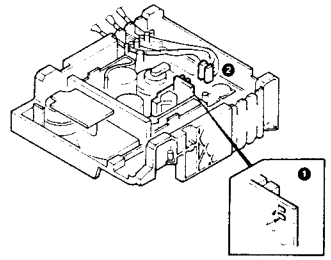


DISASSEMBLY FOR REPAIR

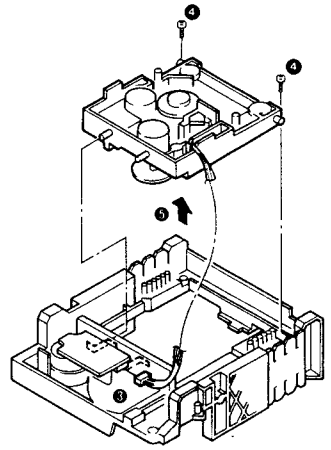
7. HOW TO REPLACE THE PICKUP

Short the short-land of the pickup before the following procedures (❶).

1. Remove 2 connectors (❷).

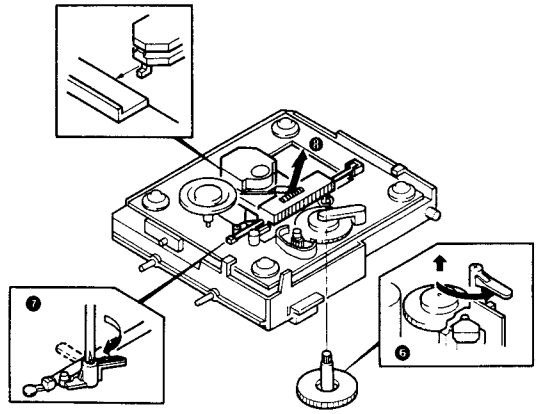


2. Remove the connector (❸).
3. Remove 2 screws (❹).
4. Remove the mechanism drive (MD) ass'y (❺).

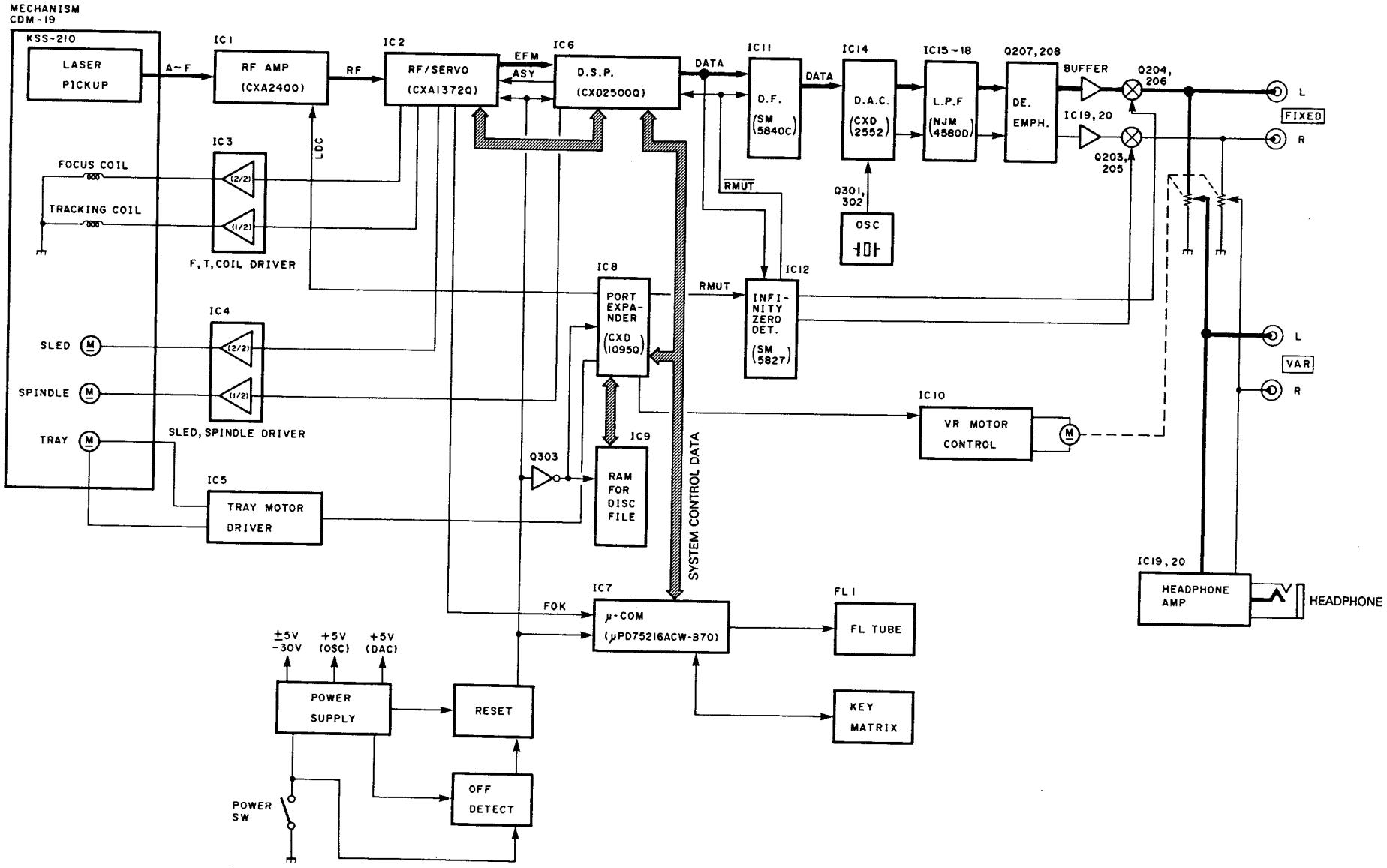


5. Remove stopper and gear (❻).
6. Remove rod stopper (❼).
7. Remove the pickup ass'y (❽).

Note : When mounting the pickup, in the reverse order of disassembly. Unsolder the short land after connecting the flexible wire.



BLOCK DIAGRAM

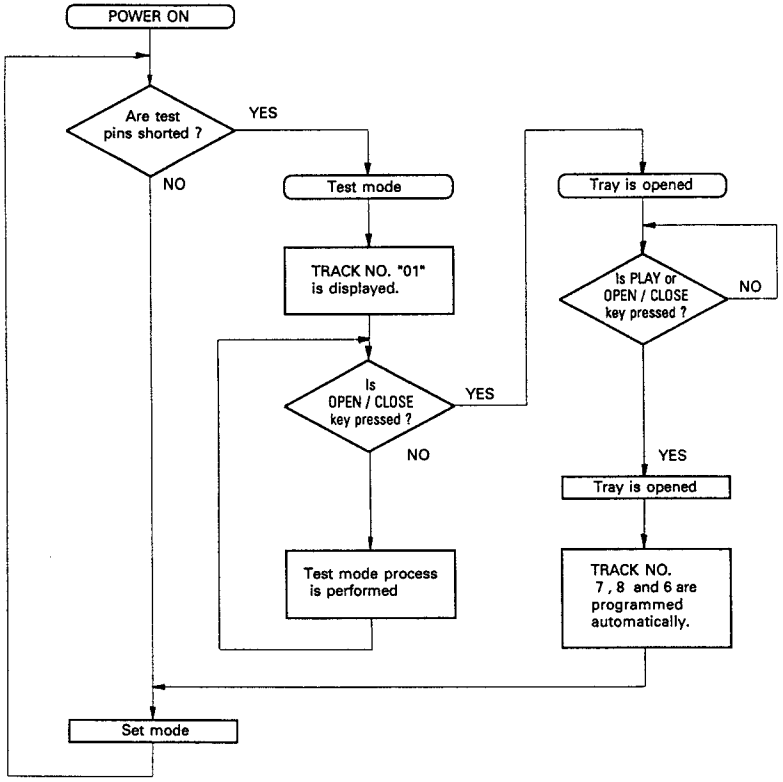


CIRCUIT DESCRIPTION

1. Test Mode

1-1. Setting the test mode

This microprocessor built in this unit can be put to TEST MODE by just short-circuiting the test pins (#7 and 8).



CIRCUIT DESCRIPTION

1-2. Key and functions valid in test mode

No.	Input key	Function	Track No. display
1	PLAY	(1) Focusing servo ..... ON (2) Tracking servo ..... ON (3) Feed vervo ..... ON	TRACK NO. 05 ↓ Displayed for a few seconds after completion (1), (2) and (3). ↓ Disc Track No. is displayed.
2	RANDOM	(1) Focusing servo ..... ON (2) Tracking servo ..... OFF (3) Feed servo ..... OFF Pause (❚❚) and "PGM CHECK" are lit.	TRACK NO. 03
3	STOP	(1) Focusing servo ..... OFF (2) Tracking servo ..... OFF (3) Feed servo ..... OFF	TRACK NO. 01
		In the STOP mode, moves the pickup slightly toward the outer position of disc.	-
		In the STOP mode, moves the pickup slightly toward the inner position of disc.	-
4	UP (▶▶|)	Turns all FL display lamps ON.	TRACK NO. 88
5	DOWN (|◀◀)	Turns all FL display lamps OFF. "TRACK NO." is lighted.	TRACK NO. 88
6	P. MODE	Track No. 7, 8, and 6, are programmed and playback . The test mode is canceled.	-
7	OPEN/CLOSE (▲)	When the tray is opened then closed. Track No. 7,8, and 6 are programmed. and set is in STOP mode. The test mode is canceled.	-
8	REPEAT	(1) Tray ..... Opened (2) Laser ..... ON The REPEAT function is canceled when pushing OPEN /CLOSE key.	TRACK NO. 02
12	Numeric key (1~10)	Jumps tracks as shown below.	-

Key	1	2	3	4	5
Number of tracks	1	4	32	128	1000
Direction	Outer				
Key	6	7	8	9	10
Number of tracks	1	4	32	128	1000
Direction	Inner				

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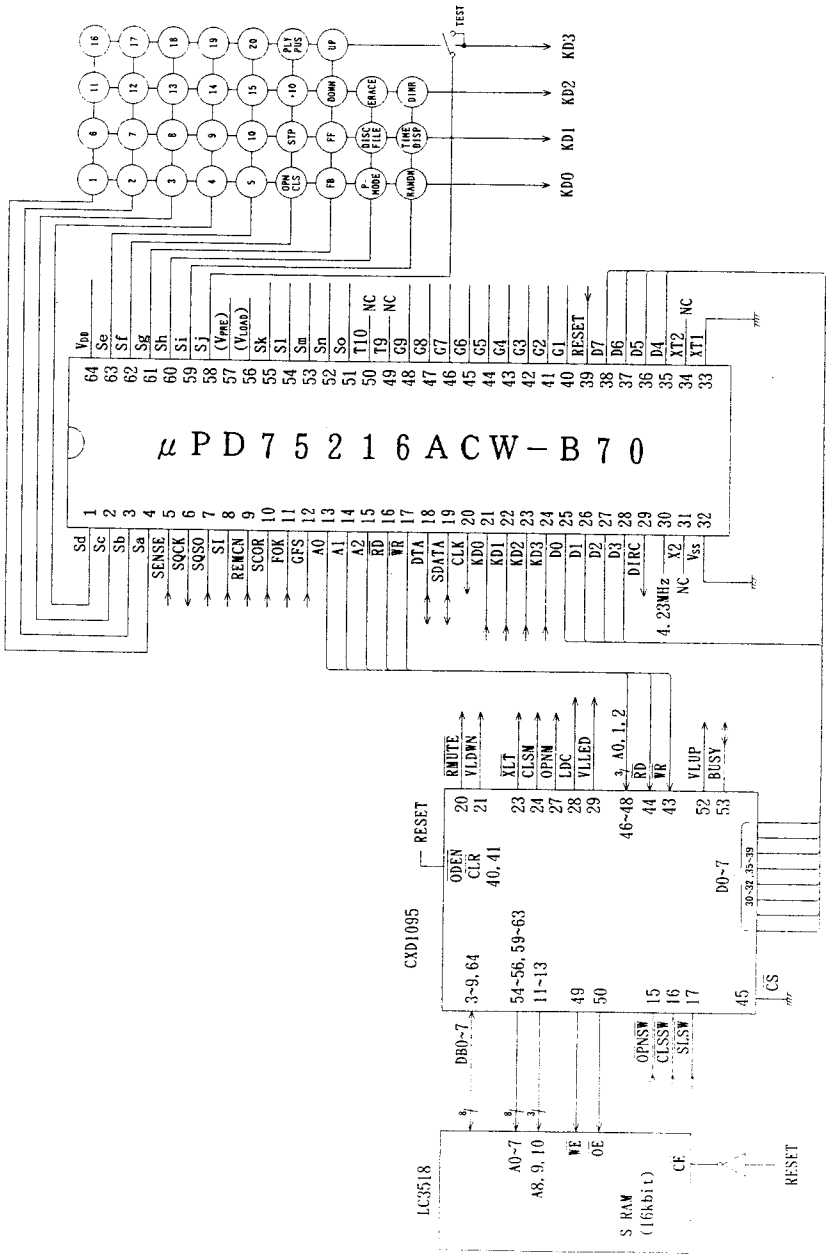
CIRCUIT DESCRIPTION

2. Microprocessor : μPD75216ACW-B70 (IC7)

2-1. Terminal connection diagram



CIRCUIT DESCRIPTION

2-2. Pin functions : μPD75216ACW-B70 (IC7) μ-com

Pin No.	Pin name	I/O	Function
1~4	Sd~Sa	O	FL segment control terminals (also used for key scan signal)
5	SENSE	O	Signal detection terminal for SENSE signal from processor and servo ICs.
6	SQCK	O	Q data read clock output terminal.
7	SQSO	O	Q data input terminal.
8	SI	–	N.C.
9	REMCN	I	Remote control input terminal
10	SCOR	I	Sub-code frame sync detection signal input terminal.
11	FOKP	I	Input terminal for FOK signal from RF amp. (focus OK :" H")
12	GFS	I	Frame sync signal input terminal. ("H" : frame sync)
13~15	A0~2	O	Control address for control register of CXD1095.
16	$\overline{RD}$	O	Read control signal for CXD1095.
17	$\overline{WR}$	–	Write control signal for CXD1095.
18	DTA	O	Control serial data to CXD2500 and CXA1327.
19	SDATA	I/O	Serial data signal input / output terminal.
20	CLK	O	Clock for serial data to CXD2550 and CXA1372.
21~24	KD0~3	I	Input terminal for key return signal from key matrix.
25~28	D0~3	I/O	Data bus to CXD1095. (LSB 4-bits)
29	DIRC	O	DIRC signal output to CXA1372.
30	X1	I	Input terminal of system clock. (4.23MHz)
31	X2	–	Not used.
32	Vss	–	GND.
33	XT1	–	GND.
34	XT2	–	N.C.
35~38	D4~7	–	Data bus to CXD1095.(MSB 4-bits)
39	RESET	I	Reset input terminal. (active "L")
40~48	G1~9	O	FL digit control terminals.
49,50	T9,10	–	N.C.
51~55	So~k	O	FL segments control terminals. (also used for key scan signal)
56	VLOAD	I	FL driver negative power supply. (-30V)
57	VPRE	I	FL pre-driver negative power supply. (-5V)
58~63	Sj~e	O	FL segment control terminals. (also used for key scan signals)
64	VDD	I	Power supply. (+5V)

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CIRCUIT DESCRIPTION

2-3. Pin functions : CXD1095 (IC8) I/O Expander

Pin No.	Pin name	I/O	Functions
1,2	N.C.	I	
3~9	DB1~7	I/O	Data input/output terminals for RAM (LC3518). (MSB 7-bits).
10	Vss	–	GND.
11~13	A8~10	O	Access address to LC3518.
14	–	–	Not used.
15	$\overline{OPNSW}$	I	Tray open switch. (Open : "L")
16	$\overline{CLSSW}$	I	Tray close switch. (Close : "L")
17	$\overline{SLSW}$	I	Sled limit switch. (SW ON : "L")
18	PC7	–	Not used.
19	N.C.	–	
20	$\overline{RMUTE}$	O	Relay mute. (Active "L")
21	VLDWN	O	Motor drived volume to counter clcock wise. (Active "H")
22	LDATA	O	20-LEDs control data.
23	$\overline{XLT}$	O	Latch signal of ending data output to LSI.
24	CLK	O	Clock signal for 20-LEDs control
25	Vss	–	GND.
26	VDD	–	Power supply. (+5V)
27	FLSG	O	Display off : "H".
28	LATCH	O	Latch signal of ending data output of 20-LEDs.
29	VLLED	O	LED indicator of motor drived volume. (In turning volume knob, LED blinks)
30~32	D0~2	I/O	Data bus to microprocessor. (LSB 3-bits)
33,34	N.C.	–	
35~39	D3~7	I/O	Data bus to microprocessor. (MSB 5-bits)
40	$\overline{CLR}$	I	Connect to RESET circuit.
41	OPEN	I	Connect to RESET circuit.
42	Vss	–	GND.
43	$\overline{WR}$	I	Write strobe signal to write data from microprocessor to CXD1095.
44	$\overline{RD}$	I	Read strobe signal to read data from CXD1095 to microprocessor.
45	$\overline{CS}$	I	Connect to GND.
46~48	A0~2	O	Address for ports and control register.
49	$\overline{WE}$	O	Write inable to write data to LC3518. (Write : "L")
50	$\overline{OE}$	O	Connect to "H" level.
51	N.C.	–	
52	VLUP	O	Motor drived volume to clockwise. (Active "H")
53	BUSY	I/O	Serial busy signal input / output terminal.
54~56	PA0~2	O	Address port to LC3518. (LSB 3-bits)
57	Vss	–	GND.
58	VDD	–	Power supply (+5V).
59~63	PA3~7	O	Address port to LC3518. (center 5-bits)
64	DB0	I/O	Data input / output terminal to LC3518. (LSB)

Note : About other semiconductors, refer to DP-7030 Service Manual (B51-4244-00).

MECHANISM OPERATION DESCRIPTION

Mechanism Operation Description

Fig. 1 shows the relationship of mechanisms in the STOP mode. The OPEN/CLOSE operation of the mechanism and the UP/DOWN operation of the pickup chassis when loading the disc are description below.

Note 1 : The black arrow (OPEN) and the while arrow (CLOSE) in the operation description have the following meanings :

Black arrow (OPEN) : Tray opening direction (Tray OPEN)

White arrow (CLOSE): Tray closing direction (Tray CLOSE)

Note 2 : Figures in the bracket ( ) in the operation description or accompanied with the part name in the diagra show the reference numbers in the Exploded View.

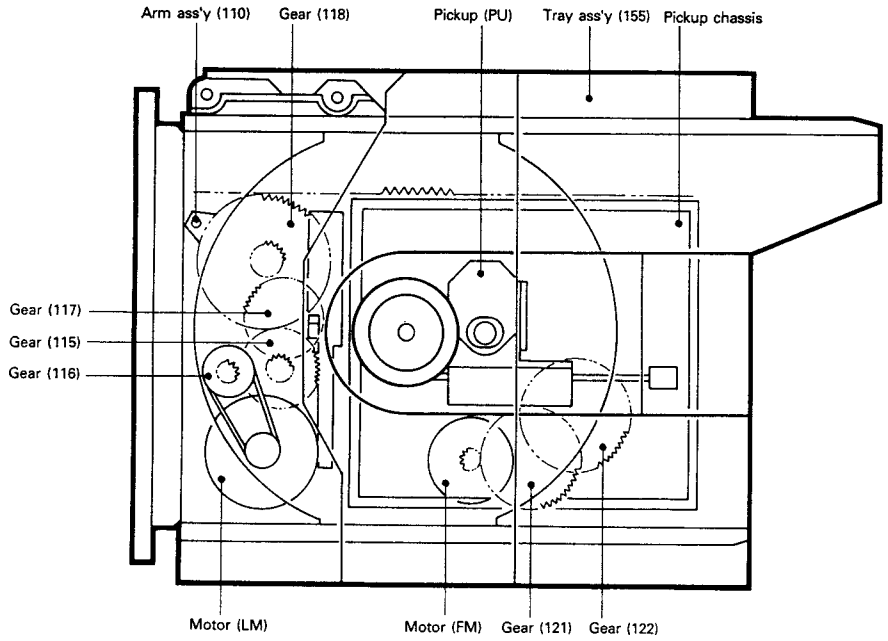

Fig.1

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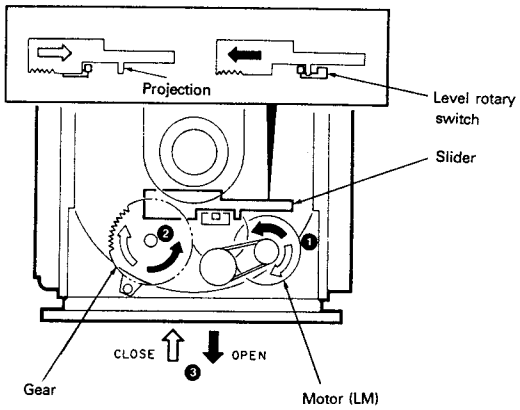
MECHANISM OPERATION DESCRIPTION

MECHANISM OPERATION

1. OPEN/CLOSE FUNCTION

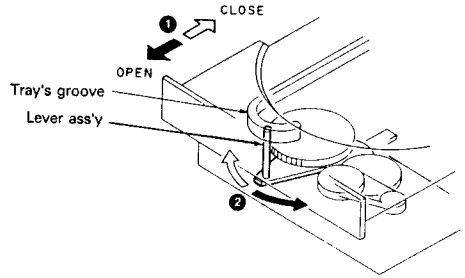
By the rotaion of the loading motor (❶) ,Gear (❷). isrotate and the tray starts OPEN/CLOSE operation (❸).

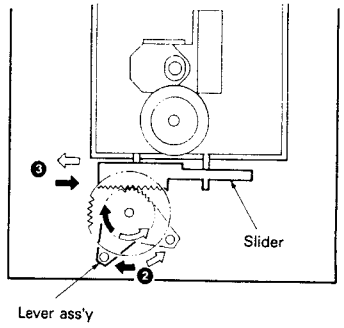
The OPEN/CLOSE operation stops when the projection of the slider comes in contact with the detection switch (❹).



2. PICKUP CHASSIS TRAVELING

According to tray's OPEN/CLOSE operation (❶). the shaft of lever moves (❷).
And then slider travels by the lever with gear (❸).





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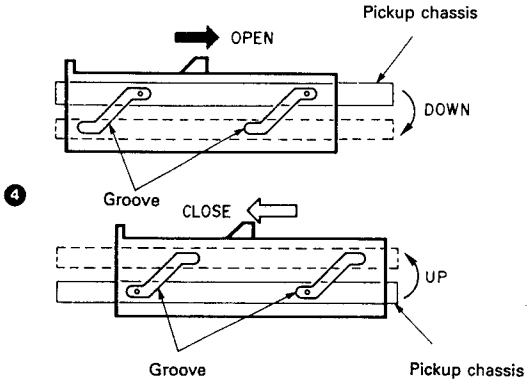
MECHANISM OPERATION DESCRIPTION

Along with the grooves in the lever, the pickup cahassis moves up and down (❹).

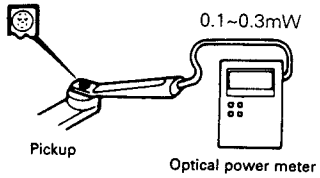


ADJUSTMENT

No.	ITEM	INPUT SETTING	OUTPUT SETTING	PLAYER SETTING	ALIGNMENT POINT	ALIGN FOR	FIG
1	LASER POWER	-	Set the sesor section of the optical power meter on the pickup lens.	Short-circuit pins TEST and turn the power on to enter the test mode. Press the RANDOM key to check that the display is "03".	-	On the power from 0.1 to 0.3mW, when the diffraction grating is correctly aligned with the RF level of 1.0Vp-p or more	(a)
2	TRACKING ERROR	Test disc Type 4	Connect an oscilloscope as follows. CH1: RF (CN3-1) CH2: TE (CN3-6)	Press the RANDOM key. Confirm that the display is "03".	TE BALANCE VR2	Symmetry between upper and lower or DC=0±0.05V	(c)
3	FOCUS ERROR	Test disc Type 4	Connect an oscilloscope as follows. CH1: RF(CN3-1) CH2: TE(CN3-6)	Press the PLAY key. Confirm that the display is" 05 ".	FE BALANCE VR1	Optimum eye pattern	(d)
4	FOCUS GAIN	Test disc Type 4 Apply signal of 1.0kHz,200mVrms to CN3 pin 2-3.	Connect a LPF to CN3 pin 2-3 to which connect an oscilloscope or AC voltmeters.	Press the PLAY key. Confirm that the display is" 05 ".	FOCUS GAIN VR3	Two VTVMs should read the same value.	(e)
5	TRACKING GAIN	Test disc Type 4 Apply signal of 1.2kHz,200mVrms to CN3 pin 5-6.	Connect a LPF to CN3 pin 5-6 to which connect an oscilloscope or AC voltmeters.	Press the PLAY key. Confirm that the display is" 05 ".	TRACKING GAIN VR4	Two VTVMs should read the same value.	(e)

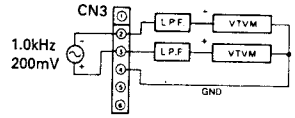
(Note) Type 4 disc: SONY YDS-18 Test Disc or equivalent.
LPF: Around 47kohms+390pF or so.
Step 1~5 are in Test Mode.

(a) Laser Power

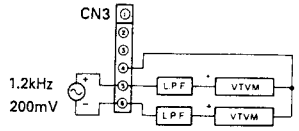


(e) Focus Gain and Tracking Gain Adj.

Focus gain Adj.

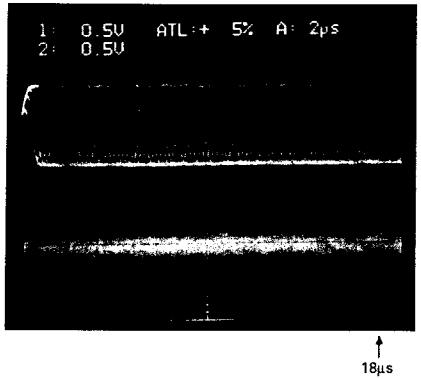


Tracking gain Adj.



DP-5030

ADJUSTMENT



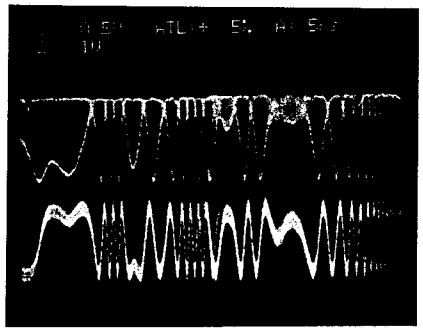
CH1 : AC couple
RF signal

← 0(V)

CH2 : DC couple
TE siganl

↑ 18µs

- RF signal and E.Spot signal in test mode (PLAY).
- If the diffraction grating has been adjusted properly, the influence of triggering is observed on the E.Spot waveform of approx. 18µs after RF signal, in the form of a projection.

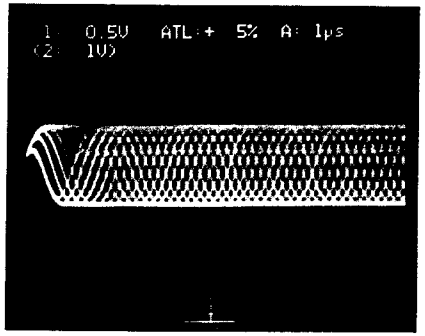


CH1 : AC couple
RF signal

← 0(V)

CH2 : DC couple
TE signal

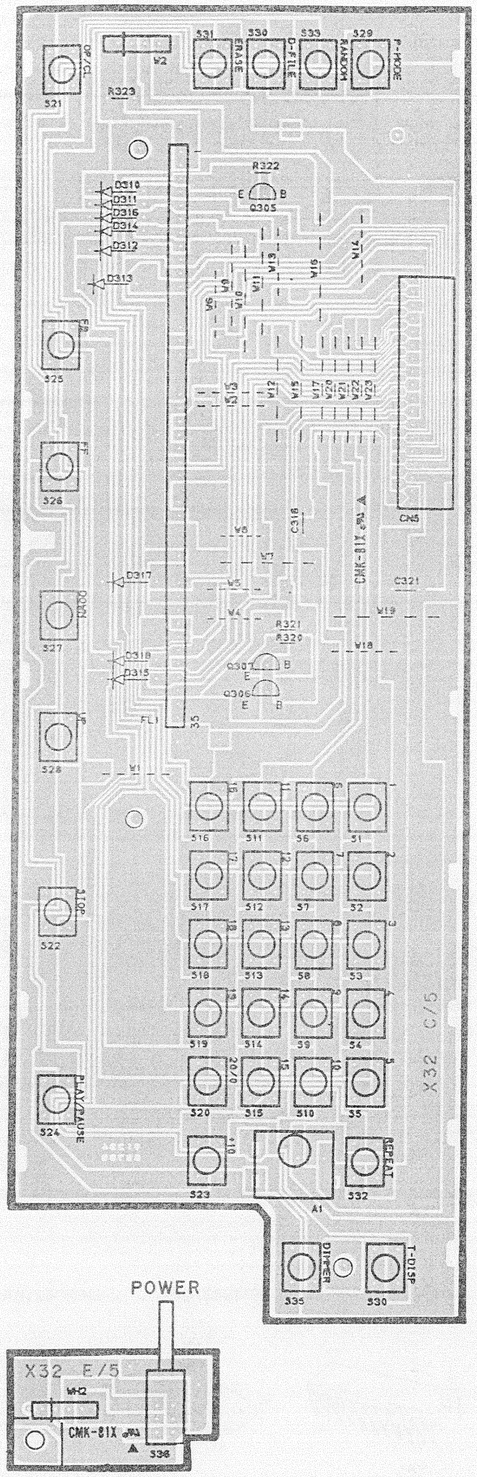
- RF signal and T.Error signal; in test mode (Focusing ON). (Disc type 4)
- Adjust T.Error so that the waveform is symmetrical above and below 0V. (VR2)

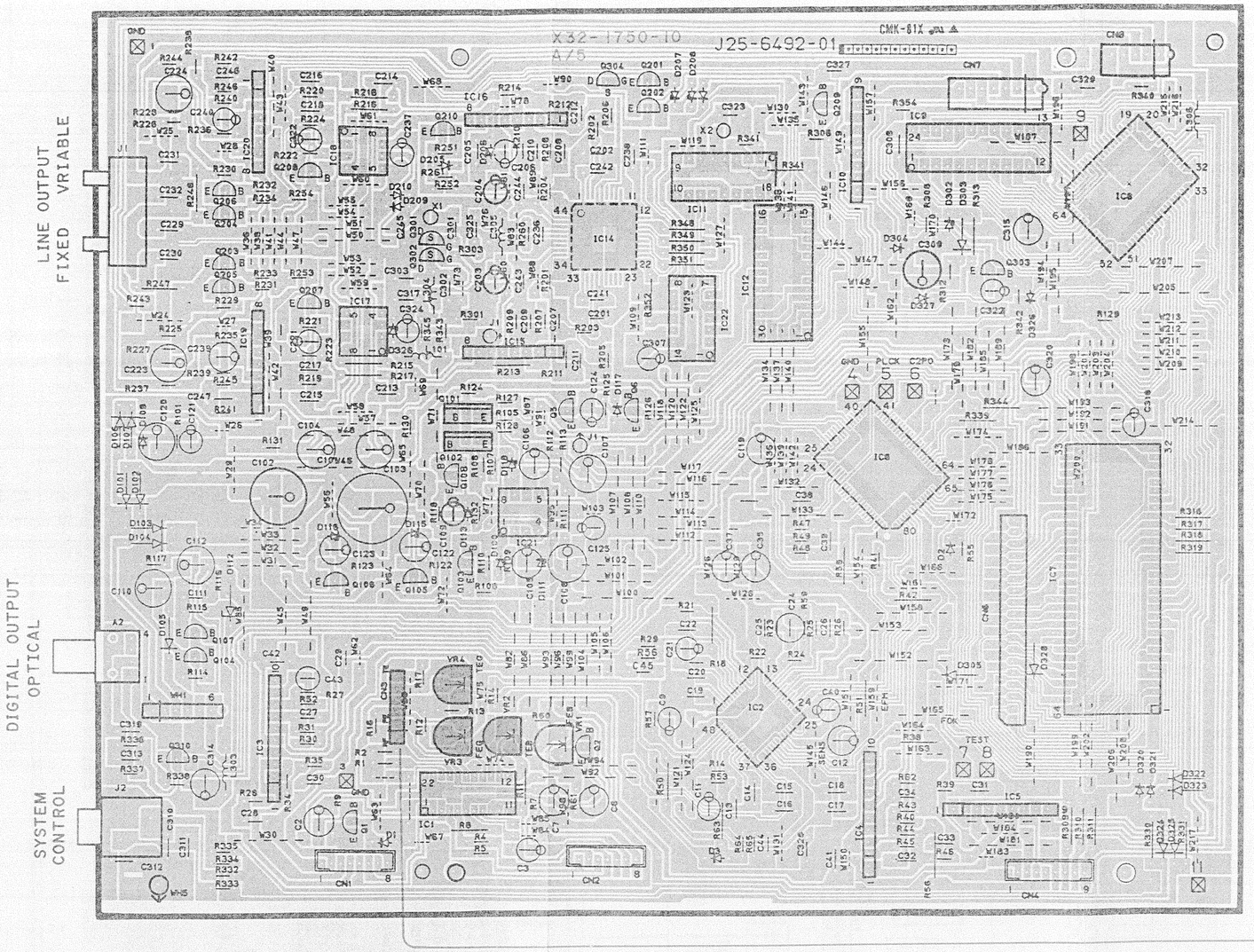


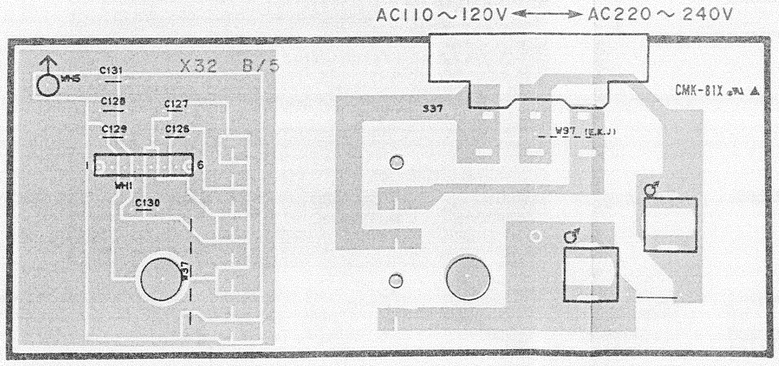
RF signal
AC couple

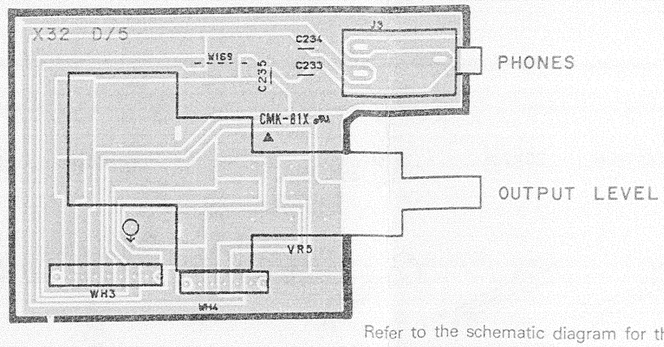
- RF signal in test mode (PLAY).
- Perform the tangential and focusing offset adjustments so that each of the center cross points are focused into one point on the display. The crossing points above and below the center shall also be displayed clearly.

PC BOARD (COMPONENT SIDE VIEW)

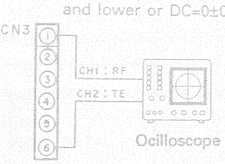




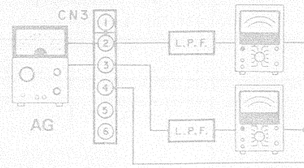




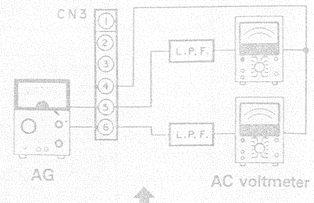
(c) Tacking error
: Symmetry between upper and lower or DC=0±0.05V



(e) Focus gain
: Two VTMs should read the same value.

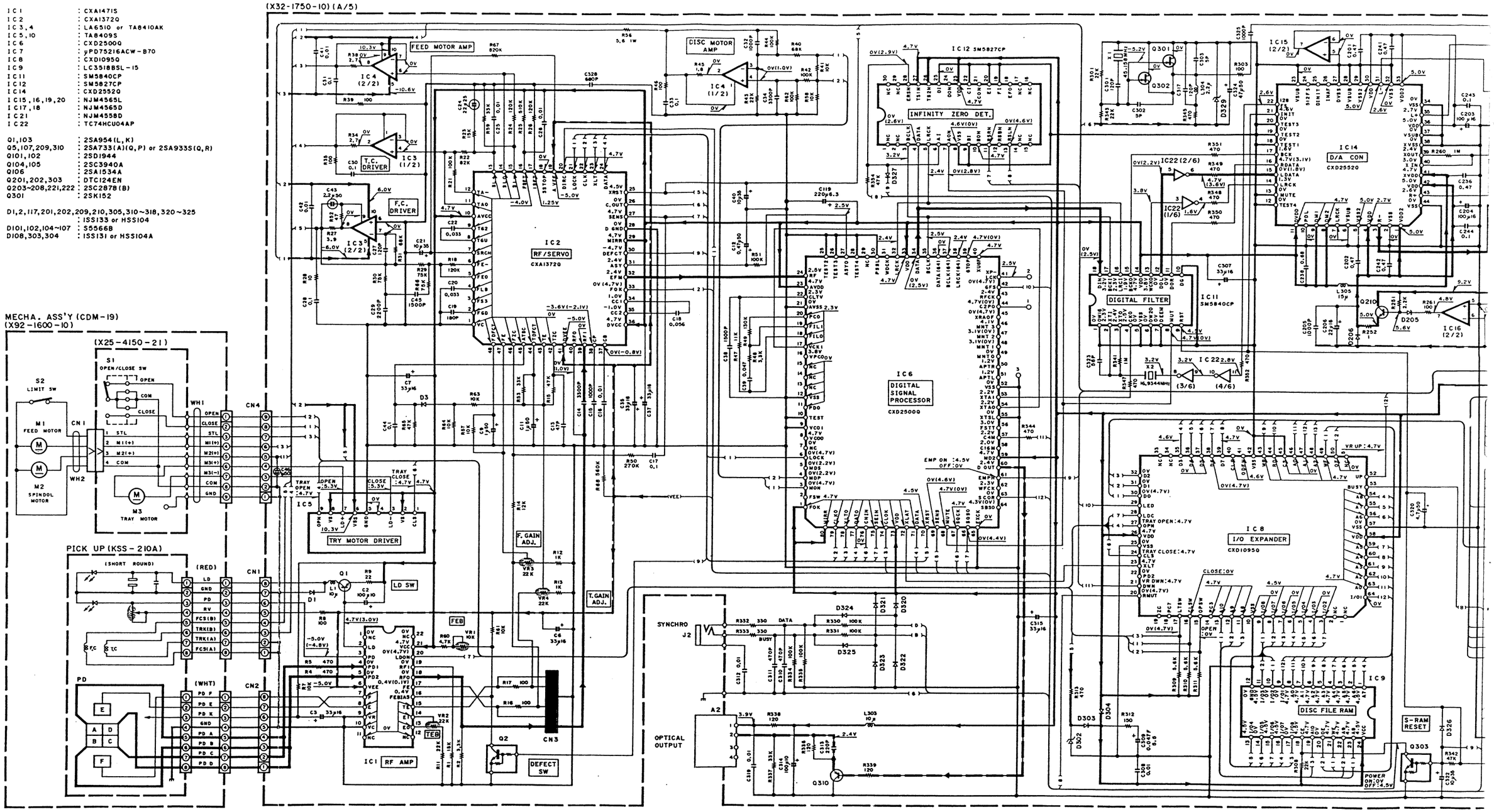


(e) Tracking gain
: Two VTMs should read the same value.

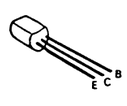


Refer to the schematic diagram for the values of resistors and capacitors.

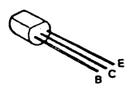
IC1	: CXA1471S
IC2	: CXA1372Q
IC3,4	: LA6510 or TA8410AK
IC5,10	: TA8409S
IC6	: CXD2500Q
IC7	: μPD75216ACW-B70
IC8	: CXD1095Q
IC9	: LC3518BSL-15
IC11	: SM5840CP
IC12	: SM5827CP
IC14	: CXD2552Q
IC15,16,19,20	: NJM4565L
IC17,18	: NJM4565D
IC21	: NJM4558D
IC22	: TC74HCU04AP
Q1,103	: 2SA954(L,K)
Q5,107,209,310	: 2SA733(A)(Q,P) or 2SA933S(Q,R)
Q101,102	: 2SD1944
Q104,105	: 2SC3940A
Q106	: 2SA1534A
Q201,202,303	: DTC124EN
Q203~208,221,222	: 2SC2878(B)
Q301	: 2SK152
D1,2,117,201,202,209,210,305,310~318,320~325	: ISS133 or HSS104
D101,102,104~107	: S5566B
D108,303,304	: ISS131 or HSS104A



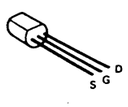
DTC124EN 2SA1534A
2SA733(A) 2SA945
2SC2878 2SC1740
2SC3940A 2SC945(A)



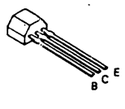
DTA124EN



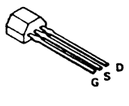
2SK246



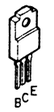
2SA933S
2SC1740S



2SK161

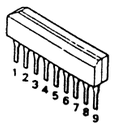


2SD1944

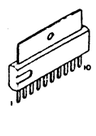


NJM4565L

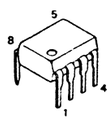
TA8409S



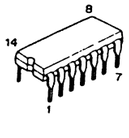
LA6510
TA8410AK



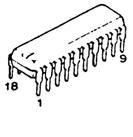
NJM4558D
NJM4565D



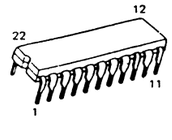
TC74HCU04AP



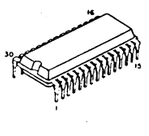
SM5840CP



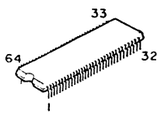
CXA1471S



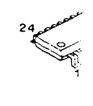
SM5827CP

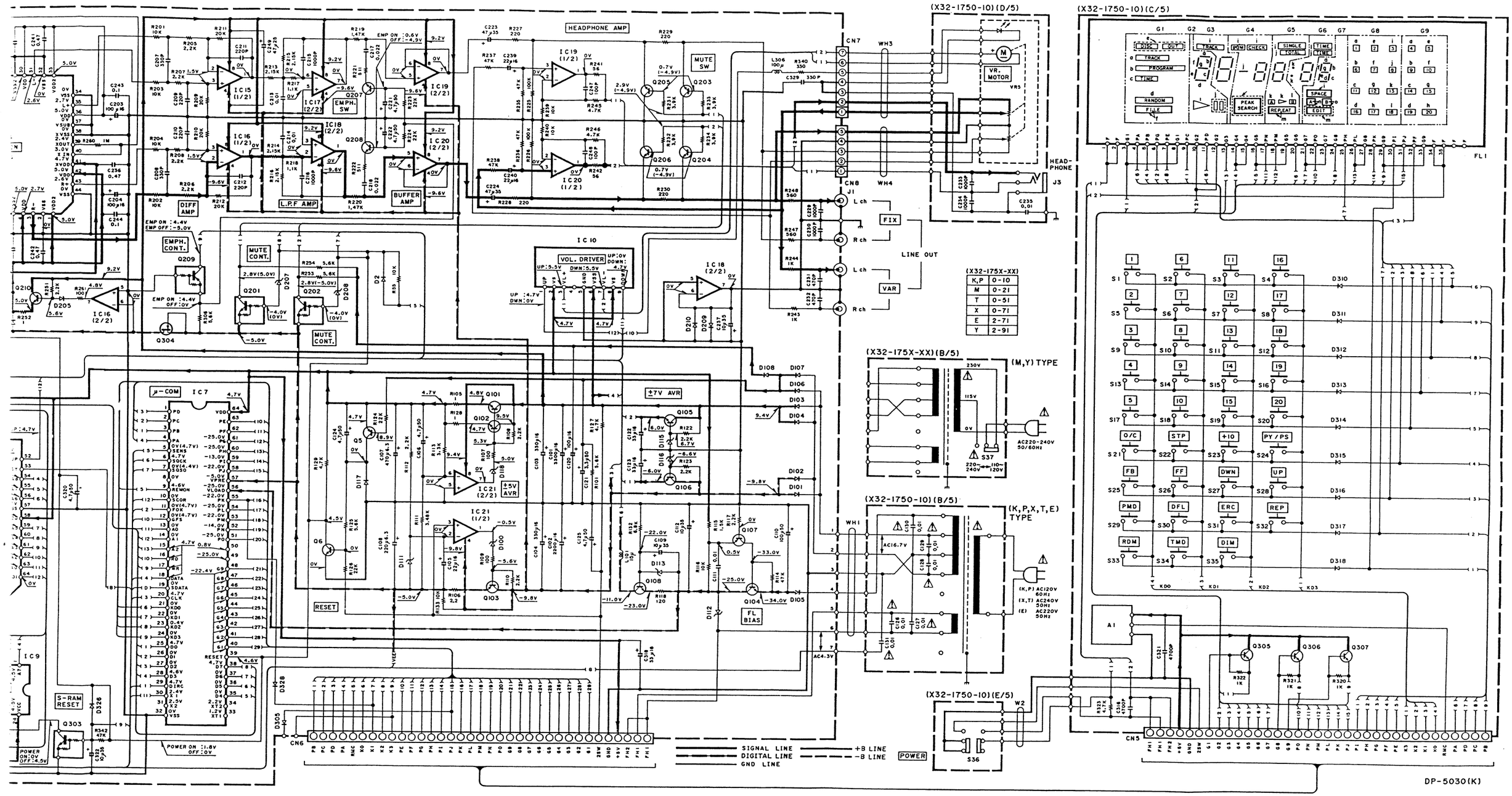


UPD75216ACW-B70



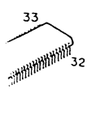
LC3518E



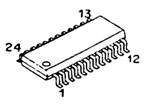


(X32-175X-XX)	
K,P	0-10
M	0-21
T	0-51
X	0-71
E	2-71
Y	2-91

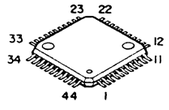
SACW-B70



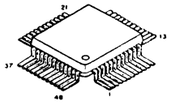
LC3518BSL-15



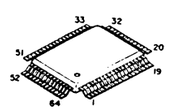
CXD2552Q



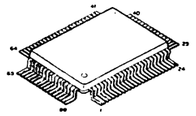
CXA1372Q



CXD1095Q



CXD2500Q



CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

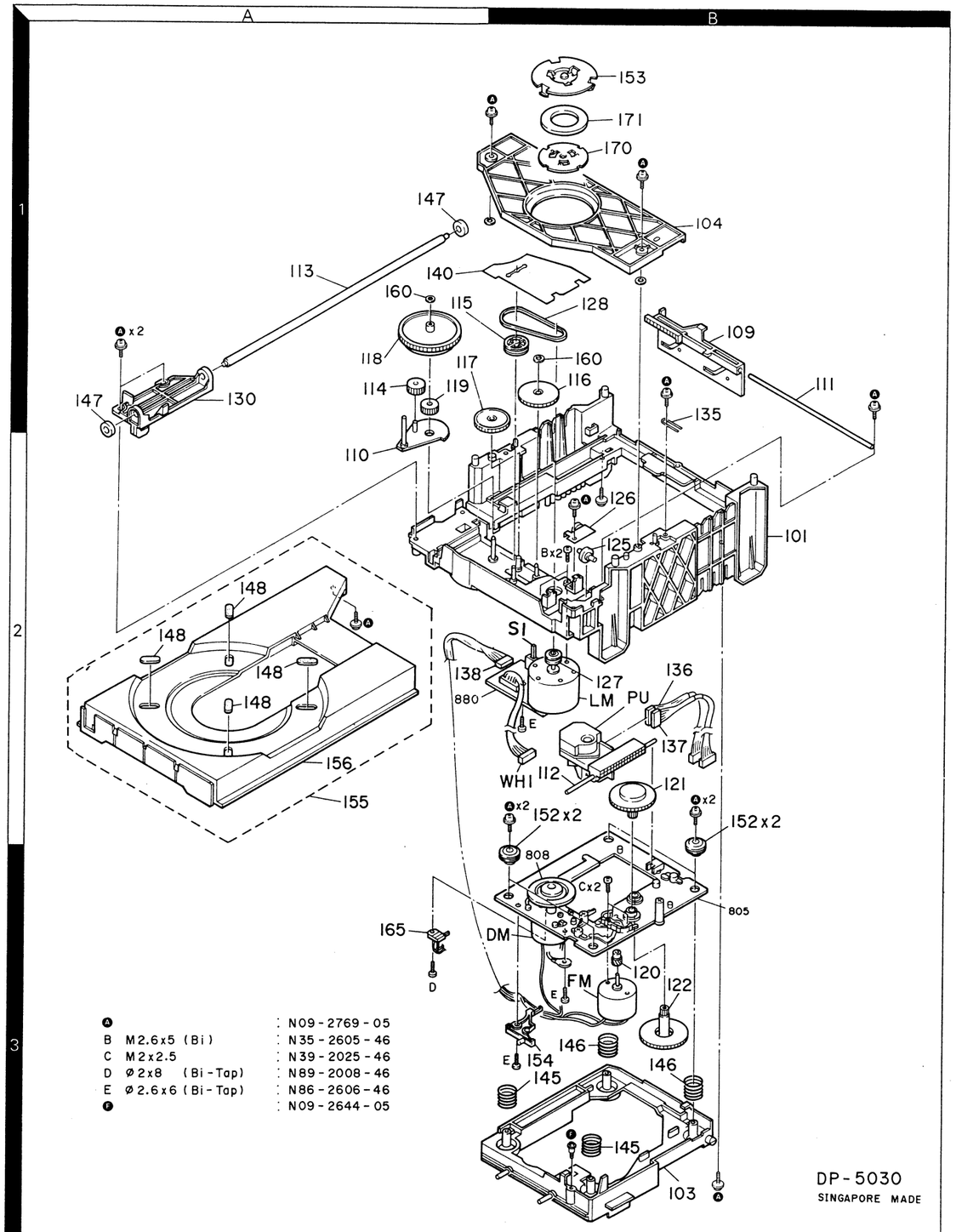
- DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

Y22-1920-00

DP-5030

KENWOOD

EXPLODED VIEW (MECHANISM)

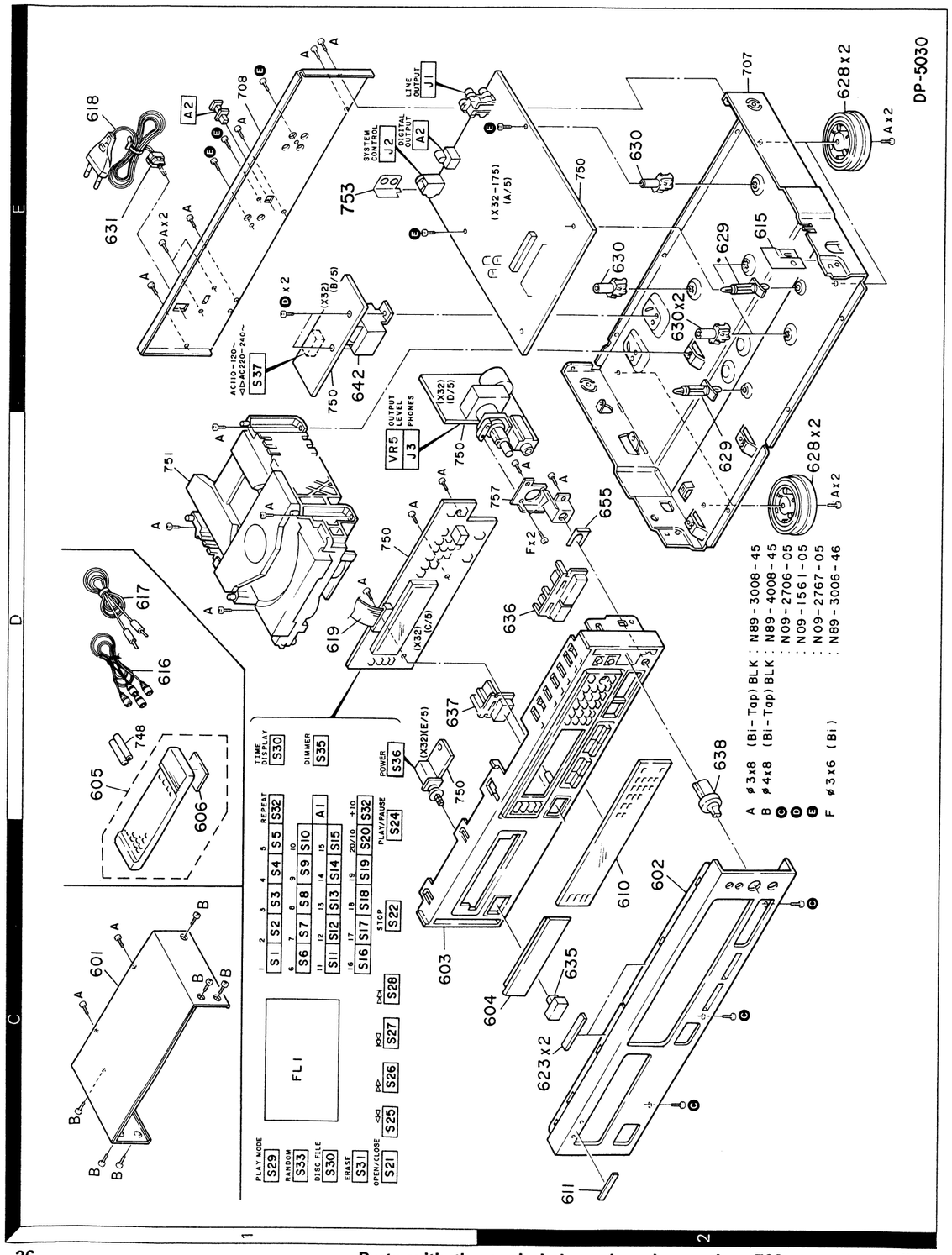


A		: N09-2769-05
B	M2.6x5 (Bi)	: N35-2605-46
C	M2x2.5	: N39-2025-46
D	Ø2x8 (Bi-Tap)	: N89-2008-46
E	Ø2.6x6 (Bi-Tap)	: N86-2606-46
F		: N09-2644-05

Parts with the exploded numbers larger than 700 are not supplied.

DP-5030

EXPLODED VIEW (UNIT)



Parts with the exploded numbers larger than 700 are not supplied.

* New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
			DP-5030			
601	1C	*	A01-1821-11	METALLIC CABINET		
602	2C	*	A20-6117-02	PANEL		
603	1C	*	A22-1444-01	SUB PANEL		
604	2C		A29-0174-03	PANEL(TRAY)		
605	1D		A70-0386-05	REMOTE CONTROLLER ASSY		
606	1D		A09-0104-08	BATTERY COVER		
610	2C	*	B10-1818-03	FRONT GLASS		
611	2C		B43-0287-04	KENWOOD BADGE		
-			B44-6006-04	POS LABEL		
-			B46-0092-03	WARRANTY CARD	K	
-			B46-0094-03	WARRANTY CARD	Y	
-			B46-0095-03	WARRANTY CARD	Y	
-		*	B46-0096-23	WARRANTY CARD	X	
-			B46-0121-03	WARRANTY CARD	P	
-			B46-0122-13	WARRANTY CARD	E	
-			B46-0143-13	WARRANTY CARD	T	
-			B58-0513-04	CAUTION CARD (PRESET220-240)	Y	
-		*	B60-0252-00	INSTRUCTION MANUAL(ENGLISH)		
-		*	B60-0253-00	INSTRUCTION MANUAL(FRENCH)	PME	
-		*	B60-0254-00	INSTRUCTION MANUAL(SPA,CHI)	M	
-		*	B60-0255-00	INSTRUCTION MANUAL(G,D,I)	E	
615	2E	*	E29-0371-04	LEAD PLATE		
616	1D		E30-0505-05	AUDIO CORD		
617	1D		E30-0977-05	CORD WITH PLUG	KPMYX	
⚠ 618	1E		E30-2275-05	AC POWER CORD	X	
⚠ 618	1E		E30-2276-05	AC POWER CORD	T	
⚠ 618	1E		E30-2277-05	AC POWER CORD	ME	
⚠ 618	1E		E30-2284-05	AC POWER CORD	Y	
⚠ 618	1E		E30-2423-05	AC POWER CORD	KP	
619	1D		E31-7895-05	PARALLEL CORD(FLATCABLE)		
623	2C		G11-0155-14	SOFT TAPE (40X9X2)		
-		*	H01-8901-04	ITEM CARTON CASE		
-			H10-3932-02	POLYSTYRENE FOAMED FIXTURE(L)		
-		*	H10-3933-12	POLYSTYRENE FOAMED FIXTURE(R)		
-			H20-0554-04	PROTECTION COVER	M	
-			H25-0232-04	PROTECTION BAG (235X350X0.03)		
-			H25-0289-04	PROTECTION BAG (850X400X0.05)	KPYXTE	
628	2D,2E		J02-1002-05	FOOT		
629	2D,2E		J19-0517-05	UNIT HOLDER		
630	2E		J19-3241-05	UNIT HOLDER		
⚠ 631	1E		J42-0083-05	POWER CORD BUSHING		
635	2C		K27-2004-04	KNOB (BUTTON)(POWER)		
636	2D		K29-4024-04	KNOB (STOP/PLAY/PAUSE)		
637	1D		K29-4025-04	KNOB (OPEN/CLOSE)		
638	2D	*	K29-4031-04	KNOB (OUTPUT LEVEL)		
⚠ 642	1E		L07-0172-05	POWER TRANSFORMER	KP	
⚠ 642	1E		L07-0173-05	POWER TRANSFORMER	XTE	
⚠ 642	1E	*	L07-0174-05	POWER TRANSFORMER	MY	
A			N89-3008-45	BINDING HEAD TAPTITE SCREW		
B			N89-4008-45	BINDING HEAD TAPTITE SCREW		

E: Scandinavia & Europe K: USA P: Canada W: Europe
Y: PX(Far East, Hawaii) T: England M: Other Areas
Y: AAFES(Europe) X: Australia

⚠ indicates safety critical components.

* New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
C			N09-2706-05	TAPTITE SCREW (PANEL)		
D			N09-1561-05	TAPTITE SCREW (3X6,+-)		
E			N09-2767-05	TAPTITE SCREW		
			MECHANISM PC BOARD (X25-4150-21)			
S1			S33-2062-05	LEVER SWITCH (OPEN/CLOSE)		
			CONTROL (X32-1750-10)			
C2			CE04LW1A101M	ELECTRO 100UF 10WV		
C3			CE04LW1C330M	ELECTRO 33UF 16WV		
C6 ,7			CE04LW1C330M	ELECTRO 33UF 16WV		
C9			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C11			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C12			CE04LW1HR47M	ELECTRO 0.47UF 50WV		
C13			CC45FSL1H470J	CERAMIC 47PF J		
C14			CF92FV1H332J	MF 3300PF J		
C15			CF92FV1H102J	MF 1000PF J		
C16			CK45FF1H103J	CERAMIC 0.010UF J		
C17			CF92FV1H104J	MF 0.10UF J		
C18			CF92FV1H563J	MF 0.056UF J		
C19			CC45FSL1H181J	CERAMIC 180PF J		
C20			CF92FV1H333J	MF 0.033UF J		
C21			CE04LW1V100M	ELECTRO 10UF 35WV		
C22			CF92FV1H333J	MF 0.033UF J		
C24			C90-1353-05	NP-ELEC 22UF 25WV		
C25 ,26			CK45FF1H103J	CERAMIC 0.010UF J		
C27			CF92FV1H121K	MF 120PF K		
C28			CF92FV1H104J	MF 0.10UF J		
C29			CF92FV1H222J	MF 2200PF J		
C30 ,31			CF92FV1H104J	MF 0.10UF J		
C32			CF92FV1H102J	MF 1000PF J		
C33			CF92FV1H104J	MF 0.10UF J		
C34			CF92FV1H332J	MF 3300PF J		
C35			CE04LW1C330M	ELECTRO 33UF 16WV		
C37			CE04LW1C330M	ELECTRO 33UF 16WV		
C38			CF92FV1H152J	MF 1500PF J		
C39			CF92FV1H473J	MF 0.047UF J		
C40			CE04LW1V100M	ELECTRO 10UF 35WV		
C41			CK45FF1H103Z	CERAMIC 0.010UF Z		
C42			CF92FV1H103J	MF 0.010UF J		
C43			C90-1350-05	NP-ELEC 2.2UF 50WV		
C44			CF92FV1H104J	MF 0.10UF J		
C45			CF92FV1H152J	MF 1500PF J		
C46			C90-1349-05	NP-ELEC 1UF 50WV		
C101			CE04LW1C332M	ELECTRO 3300UF 16WV		
C102			CE04LW1C222M	ELECTRO 2200UF 16WV		
C103,104			CE04LW1C331M	ELECTRO 330UF 16WV		
C105			CE04LW1C220M	ELECTRO 22UF 16WV		
C106			CE04LW1H4R7M	ELECTRO 4.7UF 50WV		
C107			CE04LW0J471M	ELECTRO 470UF 6.3WV		
C108			CE04LW0J221M	ELECTRO 220UF 6.3WV		
C109			CE04LW1V100M	ELECTRO 10UF 35WV		
C110			CE04LW1H101M	ELECTRO 100UF 50WV		
C111			CK45FF1H103Z	CERAMIC 0.010UF Z		
C112			CE04LW1V100M	ELECTRO 10UF 35WV		
C119			CE04LW0J221M	ELECTRO 220UF 6.3WV		

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C120			CE04LW1C101M	ELECTRO 100UF 16WV		
C121			CE04LW1H3R3M	ELECTRO 3.3UF 50WV		
C122,123			CE04LW1C330M	ELECTRO 33UF 16WV		
C124,125			CE04LW1H4R7M	ELECTRO 4.7UF 50WV		
C126-131			CK45FF1H103J	CERAMIC 0.010UF J		
C201,202			CF92FV1H474J	MF 0.47UF J		
C203,204		*	C90-1917-05	ELECTRO 100UF 16WV		
C205			CF92FV1H102J	MF 1000PF J		
C206			CE04LW1C220M	ELECTRO 22UF 16WV		
C207,208			CF92FV1H331K	MF 330PF K		
C209-212			CF92FV1H221J	MF 220PF J		
C213,214			CF92FV1H103J	MF 0.010UF J		
C215,216			CF92FV1H102J	MF 1000PF J		
C217,218			CF92FV1H223J	MF 0.022UF J		
C221,222			CE04LW1H4R7M	ELECTRO 4.7UF 50WV		
C223,224			CE04LW1V470M	ELECTRO 47UF 35WV		
C229,230			CF92FV1H102J	MF 1000PF J		
C231,232			CF92FV1H471J	MF 470PF J		
C233,234			CF92FV1H102J	MF 1000PF J		
C235			CK45FF1H103Z	CERAMIC 0.010UF Z		
C236			CF92FV1H474J	MF 0.47UF J		
C237		*	C90-1893-05	ELECTRO 10UF 35WV		
C238			CF92FV1H684J	MF 0.68UF J		
C239,240			CE04LW1C220M	ELECTRO 22UF 16WV		
C241,242			CF92FV1H474J	MF 0.47UF J		
C243,244			CF92FV1H104J	MF 0.10UF J		
C247,248			CC45FSL1H101J	CERAMIC 100PF J		
C249			CE04LW1E470M	ELECTRO 47UF 25WV		
C301			CC45FSL1H121J	CERAMIC 120PF J		
C302,303			CC45FSL1H050C	CERAMIC 5.0PF C		
C307			CE04LW1C330M	ELECTRO 33UF 16WV		
C308			CK45FF1H103J	CERAMIC 0.010UF J		
C309			C90-1826-05	BACKUP 0.047F 5.5WV		
C310,311			CK45FB1H471K	CERAMIC 470PF K		
C312			CK45FF1H103Z	CERAMIC 0.010UF Z		
C313			CC45FSL1H221J	CERAMIC 220PF J		
C314			CE04LW1A101M	ELECTRO 100UF 10WV		
C315			CE04LW1C330M	ELECTRO 33UF 16WV		
C316			CK45FF1H472Z	CERAMIC 4700PF Z		
C317			CC45FSL1H121J	CERAMIC 120PF J		
C318			CE04LW1C330M	ELECTRO 33UF 16WV		
C319			CK45FF1H103J	CERAMIC 0.010UF J		
C320			CE04LW1H4R7M	ELECTRO 4.7UF 50WV		
C321			CK45FF1H472Z	CERAMIC 4700PF Z		
C322			CE04LW1V100M	ELECTRO 10UF 35WV		
C323			CC45FSL1H560J	CERAMIC 56PF J		
C324			CE04LW1H470M	ELECTRO 47UF 50WV		
C325			CC45FSL1H102J	CERAMIC 1000PF J		
C328			CC45FSL1H681J	CERAMIC 680PF J		
C329			CC45FSL1H331J	CERAMIC 330PF J		
J1	1E		E13-1405-05	PHONO JACK(LINE OUTPUT)		
J2	1E		E11-0188-05	MINIATURE PHONE JACK(SYS/CON)		
J3	1D		E11-0199-05	PHONE JACK(PHONES)		
655	2D		J21-3326-05	JACK MOUNTING HARDWARE		

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-			J11-0098-05	WIRE CLAMPER		
L1			L40-1001-17	SMALL FIXED INDUCTOR		
L101			L40-1501-17	SMALL FIXED INDUCTOR		
L303			L40-1001-17	SMALL FIXED INDUCTOR		
L304			L40-2291-17	SMALL FIXED INDUCTOR		
L305			L40-1501-17	SMALL FIXED INDUCTOR		
L306			L40-1011-17	SMALL FIXED INDUCTOR		
X1			L77-1190-05	CRYSTAL RESONATOR(45.158MHz)		
X2			L77-1187-05	CRYSTAL RESONATOR(16.9344MHz)		
F			N89-3006-46	BINDING HEAD TAPTITE SCREW		
R56			RS14KB3A5R6J	FL-PROOF RS 5.6 J 1W		
R111			RN14BK2C3481F	RN 3.48K F 1/6W		
R213-216			RN14BK2C2151F	RN 2.15K F 1/6W		
R217,218			RN14BK2C1101F	RN 1.10K F 1/6W		
R219,220		*	RN14BK2C1471F	RN 1.47K F 1/6W		
R221,222		*	RN14BK2C5110F	RN 511.0 F 1/6W		
VR1			R12-3126-05	TRIMMING POT.(10K) FE BAL		
VR2 -4			R12-3128-05	TRIMMING POT.(22K) TE BAL/GAIN		
VR5	1D	*	R29-1006-05	POTENTIOMETER(OUTPUT LEVEL)		
S1 -35			S40-1064-05	PUSH SWITCH		
⚠ S36			S40-2370-05	PUSH SWITCH (POWER)		
⚠ S37	1D		S31-2131-05	SLIDE SWITCH (POWER TYPE)	MY	
D1 -3			HSS104	DIODE		
D1 -3			1SS133	DIODE		
D100			HZS5.1S(B2)	ZENER DIODE		
D100			RD5.1JS(B2)	ZENER DIODE		
D101-107			S5566B	DIODE		
D108			HSS104A	DIODE		
D108			1SS131	DIODE		
D111			HZS5.1S(B2)	ZENER DIODE		
D111			RD5.1JS(B2)	ZENER DIODE		
D112			HZS8.2N(B2)	ZENER DIODE		
D112			RD8.2ES(B2)	ZENER DIODE		
D113			HZS2.7N(B2)	ZENER DIODE		
D113			RD2.7ES(B2)	ZENER DIODE		
D115,116			HZS6.8N(B2)	ZENER DIODE		
D115,116			RD6.8ES(B2)	ZENER DIODE		
D117			HSS104	DIODE		
D117			1SS133	DIODE		
D118			HZS5.1S(B2)	ZENER DIODE		
D118			RD5.1JS(B2)	ZENER DIODE		
D205			HSS104	DIODE		
D205			1SS133	DIODE		
D206-208			HZS5.1S(B2)	ZENER DIODE		
D206-208			RD5.1JS(B2)	ZENER DIODE		
D209,210			HSS104	DIODE		
D209,210			1SS133	DIODE		
D302			HZS5.1S(B2)	ZENER DIODE		
D302			RD5.1JS(B2)	ZENER DIODE		
D303,304			HSS104A	DIODE		
D303,304			1SS131	DIODE		
D305			HSS104	DIODE		

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DP-5030

PARTS LIST

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			MECHANISM (X92-1600-10)			
101	2B		A10-2798-12	CHASSIS ASSY		
103	3B		A11-0695-05	SUB CHASSIS (FRAME)		
104	1B		A11-0686-03	SUB CHASSIS (CLAMP)		
109	1B	*	D10-2479-03	SLIDER		
110	2A	*	D10-2481-04	ARM ASSY		
111	1B		D10-2489-04	ROD (SLIDER)		
112	2B		D10-2490-04	ROD (DISC UP)		
113	1A		D10-2491-04	ROD (RETAINER)		
114	1A		D13-0744-04	GEAR (PULLEY)		
115	1A		D13-0779-04	GEAR (INTERMEDIATE)		
116	1B		D13-0780-04	GEAR (IDLER)		
117	1A	*	D13-0890-04	GEAR (MAIN)		
118	1A	*	D13-0891-03			
119	1A	*	D13-0892-04	GEAR (FM)		
120	3B		D13-0894-05	GEAR (INTERMEDIATE)		
121	2B		D13-0895-05	GEAR (FEED)		
122	3B		D13-0896-05	ROLLER		
125	2B	*	D14-0324-04			
126	2B	*	D14-0325-04	ROLLER ASSY		
127	2B		D15-0295-04	MOTOR PULLEY		
128	1B		D16-0309-03	BELT		
130	1A	*	D23-0267-03	RETAINER		
135	1B		E23-0343-04	TERMINAL		
136	2B		E31-7715-05	WIRING HARNESS(8P)(RED/WHITE)		
137	2B		E31-7716-05	WIRING HARNESS(8P)(BLUE/WHITE)		
138	2B	*	E31-7868-15	WIRING HARNESS(5P)		
140	1A		F19-1027-04	BLIND PLATE		
145	3B	*	G01-3326-14	COMPRESSION SPRING (FRONT)		
146	3B		G01-3327-14	COMPRESSION SPRING (REAR)		
147	1A		G11-2038-04	CUSHION		
148	2A		G16-0766-04	SHEET		
152	2B	*	J02-1058-15	INSULATOR		
153	1B	*	J11-0168-03	CLAMPER		
154	3B		J19-3335-05	BRACKET		
155	2A		J99-0088-03	TRAY ASSY		
156	2A		J99-0089-01	TRAY		
160	1A,1B		N19-0366-04	FLAT WASHER		
A			N09-2769-05	MACHINE SCREW		
B			N35-2605-46	BINDING HEAD MACHINE SCREW		
D		*	N09-2008-46	MACHINE SCREW		
E			N86-2606-46	BINDING HEAD TAPTITE SCREW		
F			N09-2644-05	STEPPED SCREW		
165	3A		S33-1022-05	LEVER SWITCH		
170	1B	*	T50-1055-04	YOKE		
171	1B		T99-0503-05	MAGNET		
DM	3B		A11-0672-18	SUB CHASSIS ASSY(DISC MOTOR)		
FM	3B		T42-0532-05	DC MOTOR (FEED)		
LM	2B		T42-0530-05	DC MOTOR (LOADING)		
PU	2B		T25-0011-05	OPTICAL PICKUP HEAD (KSS-210A)		

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D305			1SS133	DIODE		
D310-318			HSS104	DIODE		
D310-318			1SS133	DIODE		
D320-328			HSS104	DIODE		
D320-328			1SS133	DIODE		
D329			HZS11N(B2)	ZENER DIODE		
D329			RD11ES(B2)	ZENER DIODE		
FL1			CPF24176R	FLUORESCENT INDICATOR TUBE		
IC1			CXA1471S	IC(CD RF AMP)		
IC2			CXA1372Q	IC(CD RF SERVO)		
IC3 ,4		*	LA6510	IC(DUAL POWER AMP)		
IC5 ,4			TA8410AK	IC(DUAL POWER AMP)		
IC6			TA8409S	IC(MOTOR CONTROL)		
IC7		*	CXD2500Q	IC(DIGITAL SIGNAL PROCESSOR)		
		*	UPD75216ACW-B70	IC(MICROPROCESSOR)		
IC8		*	CXD1095Q	IC(I/O)		
IC9			LC35188SL-15	IC(DISC FILE RAM)		
IC10			TA8409S	IC(MOTOR CONTROL)		
IC11		*	SM5840CP	IC(DIGITAL FILTER)		
IC12			SM5827CP	IC(RESET FOR 1 BIT DAC)		
IC14			CXD2552Q	IC(D/A CONVERTER)		
IC15,16			NJM4565L	IC(DIFF AMP)		
IC17,18			NJM4565D	IC(OP AMP X2)		
IC19,20			NJM4565L	IC(HEADPHONE/BUFFER AMP)		
IC21			NJM4558D	IC(OP AMP X2)		
IC22			TC74HCU04AP	IC(CMOS INVERTER)		
Q1			2SA954(L,K)	TRANSISTOR		
Q2			DTC124EN	DIGITAL TRANSISTOR		
Q5			2SA733(A)(Q,P)	TRANSISTOR		
Q5			2SA933S(Q,R)	TRANSISTOR		
Q6		*	2SC1740S(Q,P)	TRANSISTOR		
Q6			2SC945(A)(Q,P)	TRANSISTOR		
Q101,102			2SD1944	TRANSISTOR		
Q103,105			2SA954(L,K)	TRANSISTOR		
Q104,105			2SC3940A	TRANSISTOR		
Q106			2SA1534A	TRANSISTOR		
Q107			2SA733(A)(Q,P)	TRANSISTOR		
Q107			2SA933S(Q,R)	TRANSISTOR		
Q108		*	2SC1740S(Q,P)	TRANSISTOR		
Q108			2SC945(A)(Q,P)	TRANSISTOR		
Q201,202			DTC124EN	DIGITAL TRANSISTOR		
Q203-208			2SC2878(B)	TRANSISTOR		
Q209		*	DTA124EN(Q,P)	TRANSISTOR		
Q210		*	2SC1740(Q,P)	TRANSISTOR		
Q210			2SC945(A)(Q,P)	TRANSISTOR		
Q301,302			2SK161(GR)	FET		
Q303			DTC124EN	DIGITAL TRANSISTOR		
Q304			2SK246(Y,GR)	FET		
Q305-307			2SC1740S(Q,R)	TRANSISTOR		
Q310			2SA733(A)(Q,P)	TRANSISTOR		
Q310			2SA933S(Q,R)	TRANSISTOR		
A1	1E		W02-0975-05	ELECTRIC CIRCUIT MODULE		
A2			W02-1036-05	TRANSMITTING ASSY(OPTICAL OUT)		

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SPECIFICATIONS

[Format]

System ..... Compact disc digital audio system
Laser ..... Semiconductor laser
Number of channels ..... 2 channels
Playing rotation ..... 200 rpm ~ 500 rpm (CLV)

[D/A Convertors]

D/A conversion ..... 1 Bit
Oversampling ..... 8 fs (352.8 kHz)

[Audio]

Frequency response ..... 2 Hz ~ 20,000 Hz
Signal to noise ratio ..... More than 110 dB
Dynamic range ..... More than 97 dB
Total harmonic distortion ..... Less than 0.0025% (at 1 kHz)
Channel separation ..... More than 103 dB (at 1 kHz)
Wow & flutter ..... Unmeasurable Limit
Output level/impedance
Fixed ..... 2 V/1 kΩ
Variable ..... 0 ~ 2 V/2 kΩ
Digital output
Optical ..... −15 dBm ~ −21 dBm (Wave length 660 nm)
Headphone output ..... 20 mW (16 Ω)

[General]

Power consumption ..... 14 W
Dimensions ..... W: 440 mm (17-5/16")
H: 118 mm (4-5/8")
D: 314 mm (12-3/8")
Weight (Net) ..... 4.2 kg (9.2 lb)

Note:
KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

Note :
Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on, the U.S.A. (K) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

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